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ABSTRACT

Community college transfer and native student outcomes in the area of academic achievement and student perceptions of the academic environment were studied. The study population consisted of 730 native students who enrolled at the University of Central Florida as freshmen in 1973 and 595 Florida community college transfer students who enrolled as juniors in 1975. Students were assessed by discipline, the graduation rate, academic success, academic program satisfaction, and academic environment satisfaction. The students' records were stratified by native and transfer, program discipline, and enrollment status. A graduating student questionnaire was administered to those students who graduated at the end of the 1977 spring quarter to assess academic program and academic environment satisfaction. Summary data are presented on the breakdown of the students by discipline and enrollment category; the selection of discipline; program satisfaction; and evaluation of the academic environment. The analysis reveals major differences in the selection of discipline between the two groups, but little difference in program and academic environment satisfaction. The data indicate that the graduating students perceived the university as very successful in helping students increase knowledge in their academic field but as only marginally successful in developing the student's self image, leadership skills, general skills, and involvement in cultural and social events. Questionnaire items are included. (SW)

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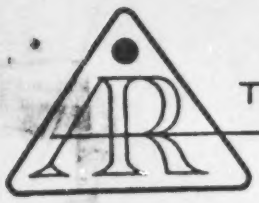

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Mary Corcoran
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AN ASSESSMENT AND COMPARISON OF EDUCATIONAL OUTCOMES OF NATIVE AND TRANSFER STUDENTS

Presented at

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San Diego, California

by

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AN ASSESSMENT AND COMPARISON OF EDUCATIONAL OUTCOMES OF NATIVE AND TRANSFER STUDENTS

INTRODUCTION

The assessment of student outcomes in the area of academic achievement and student perceptions of the institution's academic environment will continue to be an important issue for institutions of higher education throughout the 1980's. Legislative bodies, governing boards, academic administrators, students, and the lay public will continue to ask what demonstrable benefit alumni derive from their college experience. Institutions must assess the pulse of the student body to determine how effectively the various clientele are being served and whether graduates are meeting the manpower needs of our society. If institutions are to be successful in competing for scarce financial resources, it must be demonstrated that programs are of high quality and have a positive impact on the development of students who partake of the educational process.

This paper concerns the assessment of community college transfer and native student outcomes in the area of academic achievement and student perceptions of the academic environment. The specific purposes were to:

1. determine graduation rates by group.
2. determine discipline selection by group.
3. determine student program satisfaction by group.

HISTORICAL OVERVIEW

A review of the literature revealed numerous studies which contrasted the academic and social progress of transfer and native students at colleges and universities. A plethora of research was completed in the 1960's when institutions, associations, and boards became vitally interested in the articulation of students from one level of post-secondary learning to the next. The works of Knoell (1965) and Medsker (1960) reported research on the performance of transfer and native students at various educational institutions throughout the United States. An article written by John R.Hills in 1965 contrasted the research findings of more than twenty studies which compared the performance of transfer and native students at different types of institutions.

The research findings do not provide unanimous evidence that one group has been more successful than the other. Hills (1965) reported that in general the transfer shock phenomena is a reality, but a vast majority of studies showed recovery after the first term. Of those studies that addressed the issue of academic performance, 22 reported that native students demonstrated superior performance,

4 reported superior performance of the community college transfer students and 7 showed no difference in performance. The findings of Knoell paralleled the majority opinion and, in addition, reported that a smaller fraction of the junior college transfers earned baccalaureate degrees within the two year period following transfer.

In 1969, Hartmann and Caple reported on a study completed at the University of Missouri-Columbia in which they compared native students with rural, private, and metropolitan junior college transfers. Their findings revealed considerable variation among the different types of junior college transfer students with the rural transfer student performing at a level closer to the native students than to other community college transfer students.

Nolan and Hall (1978) reported on a five year follow-up study designed to assess the efficacy of a college parallel program. The study included 204 community college transfers who had earned at least 30 semester hours before transfering. Their findings revealed evidence of first semester transfer shock (a differential GPA of -0.26 on a 4 point scale) and only small differences in the performance of native and transfer students after the transfer students had completed at least 30 semester hours. In general, they found the community college transfer performance to be consistent with that of native students after the transfer students adjusted to the new environment.

It is evident that unanimity cannot be attained on the issue of the performance of community college transfer students at universities. As institutions become more output oriented and begin to measure student achievement at the junior level, assess student satisfaction upon graduation, and conduct employer follow-up studies, it may be possible to acquire additional evidence on the question of community college-native student performance.

THE STUDY

Population

The population consisted of 730 native students who enrolled at the University of Central Florida for the first time as freshmen in the Fall Quarter of 1973 and 595 Florida community college transfer students who enrolled as juniors in the Fall Quarter of 1975. The sub-population that graduated at the end of the Spring Quarter, 1977 completed the NCHEMS Graduating Student Questionnaire. The University of Central Florida is primarily a commuter institution with an average student credit hour load of approximately 11 credit hours per quarter.

Methodology

The research design contrasted the number of students by discipline, the graduation rate, academic success, academic program satisfaction, and academic environment satisfaction of the two populations. The students' records

were stratified by native and Florida community college transfer, program discipline, and enrollment status. A Chi-square analysis was used to test the null hypotheses of independence of the populations.

To assess academic program and academic environment satisfaction, the NCHEMS Graduating Student Questionnaire, developed initially for a pilot study at the University of Central Florida and two other universities, was administered to those students who graduated at the end of the Spring Quarter, 1977. Items related directly to program satisfaction and to the academic environment were utilized in the analysis. A Chi-square analysis was utilized to test the null hypotheses of independence of the two populations. Due to the limited number of students in some disciplines, a complete analysis was not practical in all areas of concern.

ANALYSIS AND INTERPRETATION OF DATA

The analysis revealed major differences between native and transfer students for some disciplines. To facilitate the interpretation and understanding of these findings, the analysis was organized into three sections--academic success, discipline selection, and program satisfaction.

Academic Success

Table 1 provides a summary of the students included in the study by discipline and enrollment category. The data revealed that 44 percent of the community college transfers

TABLE 1

SUMMARY OF NATIVE AND FLORIDA COMMUNITY COLLEGE TRANSFER STUDENTS INCLUDED IN THE STUDY
BY DISCIPLINE AND ENROLLMENT CATEGORY

Discipline	Enrollment Category																					
	Native											Community College Transfers										
	Dropped Out						Currently Enrolled		Graduated		Total	Dropped Out						Currently Enrolled		Graduated		Total
	GPA > 2.00		GPA < 2.00		Disqualified							GPA > 2.00		GPA < 2.00		Disqualified						
Biological Sciences	15	33%	4	9%	4	9%	5	11%	17	38%	45	14	38%	1	3%	3	8%	12	32%	7	19%	37
Business Admin.	40	26%	11	7%	15	10%	26	17%	61	40%	153	38	32%	2	2%	11	9%	20	17%	47	40%	118
Communications	7	27%	2	8%	2	8%	3	11%	12	46%	26	12	40%	1	3%	1	3%	3	10%	13	44%	30
Computer Science	2	11%	4	21%	1	5%	3	16%	9	47%	19	3	30%	0		1	10%	3	30%	3	30%	10
Education	27	28%	6	6%	7	7%	9	10%	47	49%	96	23	18%	0		9	7%	11	9%	85	66%	128
Engineering	16	23%	10	15%	12	17%	12	17%	19	28%	69	6	23%	1	4%	3	11%	9	35%	7	27%	26
Engineering Technology	0		0		1	25%	2	50%	1	25%	4	9	33%	2	7%	1	4%	7	26%	8	30%	27
Fine Arts	12	34%	9	26%	1	3%	4	11%	9	26%	35	13	59%	0		0		6	27%	3	14%	22
Languages	2	67%	0		1	33%	0		0		3	1	33%	0		0		0		2	67%	3
Health Rel. Professions	20	40%	7	14%	3	6%	5	10%	15	30%	50	6	21%	0		3	11%	10	36%	9	32%	28
Letters	5	36%	2	14%	2	14%	1	7%	4	29%	14	7	78%	0		0		1	11%	1	11%	9
Mathematical Sciences	0		0		0		1	10%	9	90%	10	0		0		0		0		1	100%	1
Physical Sciences	7	37%	2	11%	1	5%	1	5%	8	42%	19	1	50%	0		1	50%	0		0		2
Psychology	10	23%	5	11%	2	5%	2	5%	24	56%	43	16	42%	0		2	5%	4	11%	16	42%	38
Public Affairs	13	35%	4	11%	5	14%	2	5%	13	35%	37	8	13%	0		4	7%	14	24%	33	56%	59
Social Sciences	7	16%	3	7%	3	7%	5	12%	25	58%	43	8	20%	1	3%	2	5%	4	10%	24	62%	39
General Studies	35	55%	10	15%	9	14%	3	5%	7	11%	64	6	34%	0		4	22%	4	22%	4	22%	18
Total	218	30%	79	11%	69	9%	84	12%	280	38%	730	171	29%	8	1%	45	8%	108	18%	263	44%	595

and 38 percent of the native students graduated within the three and five year period, respectively. There were, however, major differences in the graduation rates among disciplines and between groups within discipline. In those disciplines having at least five graduates, the percentage of community college students graduating ranged from a high of 66 percent in Education to a low of 19 percent in Biology. For the native group, the graduating percentage ranged from a high of 99 percent in Mathematics to a low of 11 percent in General Studies. The comparison of the graduation rates within discipline revealed that a substantially greater percentage of native students in Biological Science, Computer Science, Letters, and Physical Science graduated within the period under review. The opposite was observed in Education, Public Affairs, and General Studies where a substantially greater percentage of transfer students graduated within the specified period. Although the percent of students who withdrew with a GPA greater than or equal to 2.0 or who were disqualified was small for the two groups, the percentage of native students who dropped out with a GPA less than 2.0 was 10 percentage points higher than the corresponding figure for the community college transfer group.

A comparison of the enrollment status profile of the two groups revealed major differences among disciplines. A Chi-square analysis was utilized to test the null hypotheses of independence of the two student populations for each discipline. The null hypotheses of independence were

rejected at the .05 level of significance for the Education, Fine Arts, Health Related Professions, Public Affairs, Social Sciences, and General Studies disciplines. An analysis of the specific contingency tables for these disciplines revealed that a disproportionate number of the native Education majors dropped out of school and fewer graduated compared to the community college transfer group. In the Fine Arts area a disproportionately large number of native students dropped out with a grade point average of less than 2.0 while only a small fraction dropped out with a grade point average of greater than or equal to 2.0 compared to their community college peers. In the Health Related Professions discipline a disproportionate number of native students dropped out with a grade point average of less than 2.0 while only a small fraction were currently enrolled compared to the community college transfer group. In the Public Affairs discipline, a greater fraction of the native students had either dropped out or were disqualified and only a small fraction were either currently enrolled or had graduated compared to the community college transfer group. In the General Studies program, a disproportionate number of the native students dropped out with a grade point average of less than 2.0 while only a small fraction were either currently enrolled or had graduated compared to the community college transfer group.

Discipline Selection

Table 2 provides a summary of the number of native and community college transfer students by discipline category. These data revealed that the greatest percentage (20.9%) of the native students majored in Business Administration. Both Business Administration and Education were high demand majors for the community college transfer students with 19.8 percent of this group majoring in Business Administration and 21.5 percent majoring in Education. An analysis of the two student populations by discipline revealed that, in general, community college transfer students did not choose to major in the Mathematical Sciences and Physical Sciences. Although only four native students majored in Engineering Technology, this was anticipated since the program is an extension of the community college Associate of Science degree program.

A Chi-square analysis was used to test the null hypotheses of independence of the two student populations on choice of discipline. The null hypothesis was rejected at the .05 level of significance. An analysis of the contingency tables revealed that a disproportionate number of native students majored in the disciplines of Engineering, Mathematical Sciences, Physical Sciences, and General Studies. Conversely, a disproportionate number of the transfer students majored in Education, Engineering Technology, and Public Affairs. These data indicate that discipline selection is dependent on student group.

TABLE 2

NUMBER AND PERCENT OF NATIVE AND COMMUNITY COLLEGE TRANSFER STUDENTS BY DISCIPLINE

Discipline	Native		Community College Transfers	
	#	%	#	%
Biological Sciences	45	6.2	37	6.2
Business Administration	153	20.9	118	19.8
Communications	26	3.5	30	5.1
Computer Science	19	2.6	10	1.7
Education	96	13.2	128	21.5
Engineering	69	9.5	26	4.4
Engineering Technology	4	.5	27	4.5
Fine Arts	35	4.8	22	3.7
Languages	3	.4	3	.5
Health Related Professions	50	6.8	28	4.7
Letters	14	1.9	9	1.5
Mathematical Sciences	10	1.4	1	.2
Physical Sciences	19	2.6	2	.3
Psychology	43	5.9	38	6.4
Public Affairs	37	5.1	59	9.9
Social Sciences	43	5.9	39	6.6
General Studies	64	8.8	18	3.0
Total	730	100.0%	595	100.0%

Program Satisfaction

Program satisfaction was assessed using selected items in the NCHEMS Graduating Student Questionnaire. Table 3 provides a summary of the number and percent of native and community college transfer students by item and rating category. The data revealed similar response patterns for most items. The vast majority of both groups were either somewhat or very satisfied with experiences associated with their academic program. A Chi-square analysis was utilized to test the null hypotheses of independence of the two student populations for each item to determine if ratings were dependent on student group. The null hypothesis of independence on accessibility of instructors was rejected at the .05 level of significance. An analysis of the contingency tables revealed that a greater fraction of the community college transfer students reported they were very satisfied and a smaller fraction reported that they were somewhat satisfied than did their native peers. Clearly the difference identified between the student groups was only a matter of degree of satisfaction. In each of the remaining cases, the null hypothesis of independence was not rejected at the .05 level of significance.

To determine if program satisfaction varied between groups within discipline, a Chi-square analysis was completed for those sub-groups in which a sufficient number of native and community college transfer students graduated. This

TABLE 3

PROGRAM SATISFACTION SUMMARY
NUMBER AND PERCENT BY STUDENT GROUP, ITEM, AND RATING CATEGORY

How satisfied are you with your experience at this school in each of the following areas?	Student Group	Very Dissatisfied		Somewhat Dissatisfied		Somewhat Satisfied		Very Satisfied	
		#	%	#	%	#	%	#	%
Your overall impression of general education courses	Native	11	5.8%	28	14.8%	101	53.4%	49	25.9%
	Transfer	7	4.7	20	13.3	86	5.7	37	2.4
Your overall impression of courses in your major/program	Native	2	1.0	18	9.3	71	36.8	102	52.8
	Transfer	2	1.3	9	6.0	56	37.3	83	55.3
The overall quality of instruction	Native	2	1.0	22	11.3	95	49.0	75	38.7
	Transfer	0	0	12	8.0	78	52.0	60	40.0
The accessibility of instructors	Native	3	1.5	24	12.4	105	54.1	62	32.0
	Transfer	0	0	25	16.7	61	40.1	64	42.7
Helpfulness of instructors in assisting you with career plans	Native	21	12.3	35	20.5	75	43.9	40	23.4
	Transfer	12	8.1	32	21.5	55	36.9	50	33.6

analysis was limited to Business, Education, Health Related Professions, and the Social Sciences (Psychology, Public Administration, and Social Sciences). In each case the null hypothesis of independence was not rejected at the .05 level of significance. In general there appears to be no difference between the level of program satisfaction between the native and the community college transfer students.

Academic Environment

Selected questions in the NCHEMS Graduating Student Questionnaire relate to the academic environment. Table 4 provides a summary of the number and percent of student responses for those items related directly to the academic environment. The data revealed a similar response pattern among groups and across items. Approximately 75 percent of the students indicated that the University was a great deal of help in enabling them to increase their knowledge in their academic field. Approximately 75 percent of the students indicated that the University was either of some help or a great deal of help in enabling them to learn specific skills that would enrich their daily life. The item that concerned helping the students increase participation in cultural and social events revealed that more than 50 percent of the community college transfer students and 31 percent of the native students did not have increasing participation in cultural and social events as a goal. In addition, approximately 20 percent of both groups indicated that the

TABLE 4

NUMBER AND PERCENT BY STUDENT GROUP, ITEM, AND RATING CATEGORY

How much help did your experiences at this school give you in reaching each of the goals listed below?	Student Group	This Was Not a Goal of Mine		This School Was Not Much Help		This School Was Some Help		This School Was A Great Deal of Help	
		#	%	#	%	#	%	#	%
To increase my knowledge in my academic field	Native	3	2.0%	2	1.3%	40	26.5%	106	70.2%
	Transfer	1	.5	1	.5	43	21.9	151	77.0
To learn specific skills that will enrich my daily life	Native	26	17.8	18	12.3	60	41.1	42	28.8
	Transfer	32	16.3	25	12.8	77	39.3	62	31.6
To increase my participation in cultural and social events	Native	47	31.3	32	21.3	47	31.3	24	16.0
	Transfer	100	50.8	39	19.8	45	22.8	13	6.6
To improve my self image	Native	30	20.0	16	10.7	59	39.3	45	30.0
	Transfer	41	21.0	25	12.8	77	39.5	52	26.7
To improve my leadership skills	Native	31	20.1	20	13.3	54	36.0	45	30.0
	Transfer	45	22.9	26	13.3	85	43.4	40	20.4

University was not much help in achieving this goal. Further, more than 20 percent of each group indicated that to improve their self image and to improve their leadership skills was not a goal they had established for themselves and more than 10 percent of each group indicated that the University was not much help in achieving this goal.

In general the data revealed that the University is very successful in helping students increase knowledge in their academic field but is only marginally successful in developing the student's self image, leadership skills, general skills, and involvement in cultural and social events. A Chi-square analysis was utilized to test the null hypotheses of independence of the two populations for each item to determine if ratings were dependent on student group. The null hypothesis of independence was rejected at the .05 level of significance for the item which concerned increasing participation in cultural and social events. An analysis of the contingency tables indicated that a substantially smaller fraction of the community college transfer students selected increased participation in cultural and social events as a goal compared to their native peers. Further, of the native students who selected it as a goal, a proportionately larger fraction indicated that the University was of great help in reaching this goal compared to their community college transfer peers. The remaining 4 null hypotheses related to the academic environment items were not rejected at the .05 level of significance.

To determine if satisfaction with the academic environment was dependent on group within discipline, a Chi-square analysis was completed for the Business Administration, Education, Health Related Professions, and Social Sciences sub-groups. The null hypotheses of independence for the item concerning increased participation in cultural and social events and the item which pertained to improving leadership skills were rejected at the .05 level of significance for the Education sub-group. An analysis of the contingency tables revealed that a large fraction of the community college transfer group indicated it was not a goal for them and of those who indicated it was a goal, only a small fraction indicated that the University was helpful in achieving the goal compared to their native peers. In the area of improving leadership skills, a similar distribution was observed. As a general observation, however, the data revealed that student perceptions of the academic environment are not dependent on whether the student is native or a transfer from a community college.

SUMMARY AND CONCLUSIONS

This study compared selected characteristics and educational outcomes of a population of native students and community college transfer students who attended the University of Central Florida during a period beginning in the Fall Quarter, 1973 and Fall 1975, respectively. The

study compares native and transfer students in terms of choice of discipline, graduation rate, academic success, academic program satisfaction, and academic environment satisfaction. Data for analysis and study were secured from the student's official record and from a graduating student questionnaire developed initially for an NCHEMS pilot study at the University of Central Florida and two other universities.

The data and analysis revealed major differences between native and transfer students in several areas and among disciplines. Student success in terms of completion of their degree program revealed that 38 percent of the native students and 44 percent of community college transfer students graduated within a three year and five year period, respectively. However, a substantially greater percentage of native students in Biological Science, Computer Science, Letters and Physical Science graduated during the period under review. For transfer students, a higher percentage of those majoring in Education, Public Affairs, and General Studies graduated during the period under review.

The study revealed that a large percentage of native students majored in Business Administration while both Business Administration and Education were high demand majors for community college transfer students. The within discipline analysis revealed that a substantially greater fraction of Engineering, Mathematical Sciences, and Physical

Sciences majors were native students while a greater fraction of Education, Engineering Technology, and Public Affairs majors were community college transfer students.

In the area of program satisfaction and satisfaction with the academic environment, selected items on the NCHEMS Graduating Student Questionnaire were analyzed for those students in the two groups who graduated at the end of the Spring Quarter, 1977. Surprisingly little difference in program and academic environment satisfaction was observed. The data revealed that the University, as perceived by graduating students, was successful in increasing knowledge in their academic field but was only marginally successful in developing the student's self image, leadership skills, general skills, and involvement in cultural and social events.

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